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ABSTRACT

Efforts to strengthen faculty involvement in international programs that were undertaken by Cook College, the agricultural and environmental unit of Rutgers, The State University of New Jersey, are discussed. Reasons for international program activities are identified, including program enrichment, the self-interest of the university, and humanitarianism. The University established an ad hoc committee on international education that assessed needs, defined goals, and initiated actions to make international education an integral part of the schools' institutional mission. Recommendations included increasing enrollment of foreign students, and expanding students' awareness of career opportunities in the international domain. In 1984 a permanent collegewide committee on international agricultural and environmental affairs was constituted to provide guidance and oversight for international initiatives. Twelve new international courses were developed and cross-cultural simulations were a part of the curriculum change. New faculty positions were established, and a policy concerning using tenured faculty for at least half of its overseas positions was negotiated. A process by which to evaluate faculty performance was also developed. (SW)

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STRENGTHENING INTERNATIONAL AGRICULTURAL AND ENVIRONMENTAL PROGRAMS: FOUR KEY INGREDIENTS*

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Most U.S. land grant colleges and universities have augmented their traditional mission to include international development activities. However, as yet, their organizational mechanisms and formal policies are frail and inadequate, when compared with the challenges of this new commitment. Several recent studies have called attention to disincentives which are operating to inhibit effective involvement in international programs (Kiehl, 1980; Management Analysis Center, 1982; Van Buren, 1984). Chief among these are inadequate resource incentives for institutional and departmental participation, plus a perception among faculty that an overseas assignment will have a detrimental impact on promotion and tenure.

Small institutions and departments can ill afford the high up-front costs of collaborative research, overseas institutional development, and proposal preparation. Nor can they afford to have their human resources decimated by the long-term assignment of faculty overseas. Jones and Crawford (1985) have effectively summarized some of the reasons for the reluctance of faculty to accept long-term assignments on international projects:

> One reason for declining faculty involvement is a perception that there is a great deal of risk and uncertainty for an individual faculty member to accept an international assignment (Whitaker, 1980). The reasons for this perception range from fear that an international assignment will not enhance their professional career to the fear that such an experience will not be considered favorably regarding appointments, tenure, and promotion to salary policies and organizational structure (CID-AID, 1968; Management Analysis Center, 1982; Perez and Rogers, 1984). Even if approval was given from a dean or department head, an international assignment still represents a detour "...fraught with unknowns and diversions from professional activities that have required a relatively long gestation period" (Whitaker, 1980, p. 20).

It was against this background that Cook College, the agricultural and environmental unit of Rutgers, The State University of New Jersey, was invited by the University's central administration to propose means for

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strengthening international program involvement. During the past five years, with leadership from the International Agricultural and Food Program (IAFP), and the assistance of the Office of Resident Instruction, a strategy has evolved that encompasses four key ingredients:

1. a clear justification and rationale for international program activities
2. a campus-based curriculum and faculty development program
3. resource rewards for participating departments and faculty, and
4. professional advancement rewards for individual faculty.

The purpose of this paper is to describe each of these key ingredients in the hope that they may prove helpful to other U.S. universities that are seeking to strengthen international program involvement.

Justification and Rationale

A clear international perspective is an imperative of today's interdependent world. Such a perspective should provide understanding of how the future of the university, the state, and the nation more generally is bound to the fate of all peoples. Furthermore, it should be sufficiently compelling to attract resources and specific programs. At Rutgers we believe that international program involvement will lead to program enrichment, that it is in our best self-interest, and that it responds to deep-seated humanitarian concerns.

Program Enrichment

Education is an international activity impacting all fields of study and periods of history that the university serves. In its fullest meaning, it involves learning about one's country and self in the context of a broader and more diverse world. Research today requires an expanded international base of operations due to the worldwide spread of information and data, expertise, funding sources, and talent for graduate education. Even public service in an interdependent world must help bridge diverse cultures and cultivate recognition and respect here at home for the rights and needs of other nations. In short: we believe that all of the university's traditional programs can be enriched by international components and better achieve, thereby, their full potential.

Self-interest

Following from the preceding statement is a corollary: that a university's quest for excellence and world-class status is served importantly by the internationalization of its programs. Among other things, that status obliges the university to demonstrate that it can compete globally for the best students and faculty and for program resources. Moreover, it is in our self-interest to meet that challenge successfully, as federal budget austerity toward higher education increases and American universities face the projected downside of the demographic cycle affecting enrollments of U.S. students.

Humanitarianism

Human rights, and political, economic, and intellectual oppression worldwide, have come to affect virtually every institution of our society, but especially its academic institutions. The encouragement of international programs at home, and research and study abroad, can support the humanitarian commitment of a university community to academic freedom and nondiscrimination. Active recruitment of foreign students and faculty can increase access to higher education among populations disadvantaged locally by severe economic and social barriers to entry. The humanitarian commitment can be served further by encouraging participants from areas that are experiencing human rights violations of the overt or more subtle forms.

Curriculum and Faculty Development

Faculty and students must be "turned on" to the importance and possibilities of international education and development before they will make commitments to this nontraditional field. As an initial step, we established an **ad hoc** committee on international education which assessed our needs, defined goals and objectives, and initiated actions that promised to make international education an integral part of the College's mission. This committee recommended (1) an increase in the enrollment of foreign students, (2) improvements in student life services for foreign students, (3) expansion of students' awareness of career opportunities in the international domain, and (4) a review of the curriculum and the development of an international perspective in relevant courses.

A second **ad hoc** committee was appointed later to address the curricular issue. It established a definition and criteria for a course to be considered international in scope. Courses at Cook College that meet those criteria were identified and published in the catalog. The committee also developed a certificate program in international studies that complements existing academic majors and better prepares students for overseas employment. In 1984 a permanent collegewide committee on International Agricultural and Environmental Affairs was constituted with the purpose of providing guidance and oversight for all international initiatives.

College funds and two grants from the N.J. Department of Higher Education have supported faculty and curriculum development during the past two years. The first project (Hartley, 1986) included a series of workshops and seminars for faculty followed by a curriculum development minigrant program. **Workshops** focused on (1) the expansion of knowledge and instructional abilities of faculty and (2) the why, how, and means of developing an international perspective in the college's programs of instruction. The **grant competition** served as an enabling component and provided incentives to incorporate or expand the international perspective in courses/curricula. A **resource/information** component produced a directory of faculty with international expertise and a bibliography of materials, articles, and books with an international focus related to the specialized curricula at Cook College. This project resulted in the addition of 12 new "international" courses and a direct impact on 900 students through 20 courses.

The second project, "Curricula Development through Cross-Cultural Simulations," was an outgrowth of one of the **minigrants** noted above. One of the problems frequently encountered in attempting to provide students (and faculty) with a meaningful educational experience with an international dimension is the inability to routinely provide experiential learning opportunities overseas. In most instances, lack of time and resources simply does not permit large numbers of students and faculty to travel to foreign countries for cross-cultural experiences.

One way to address this problem is through the use of **gaming simulations**. This strategy provides participants with dynamic systems simulations that offer near-firsthand experiences through **role playing** and **decision-making** exercises related to concepts and issues of international significance that are being covered in the course. These exercises give faculty a mechanism for introducing such content to courses where little may have existed before. More specifically, simulations (frequently used by government agencies such as NASA and in the private sector as well) are tools for teaching, training, and policy making. They can be powerful instruments in the international education of students and in the predeparture orientation of faculty scheduled for overseas assignments.

In cross-cultural simulations, social systems, for example, are modeled by the designer, with particular attention to structural constraints and opportunities present in the real-world context. Participants make these models operate, bringing to the exercise psychological responses, values, and blinders. The interaction of these allows system elements to be high-lighted and analyzed. The interaction of the model and participants also permits better identification of alternatives, strategies, and consequences of decisions that might be made. (For more information, see **Principles and Practices of Gaming-Simulation**, Greenblat and Duke, 1981).

With support from the IAFP, the Office of Resident Instruction, and a small grant from the N.J. Department of Higher Education, a series of workshops on cross-cultural simulations was offered. Over 100 faculty from the college and neighboring institutions participated. If each instructor uses only one of the many simulations introduced in a single course with an average enrollment of 30 students, 3,000 students will have benefitted from this project.

In addition to the above, a variety of other initiatives have stimulated student and faculty interest in the international domain. Among these are International Horizons Week, campus-based workshops for developing country participants, an international research grant program for undergraduates and graduates, and challenge grants for faculty.

International Horizons Week, scheduled each fall in conjunction with World Food Day, focuses attention on world hunger and other current international agricultural and environmental issues. Roles that Cook College faculty, students, and IAFP play in resolving such problems are highlighted through the week's activities. Major events are an international careers night and the Grant F. Walton Lecture Series. Named after a former dean of Cook College, the Walton lectures feature keynote addresses by internationally recognized experts in agriculture and the environment.

IAFP presents, in cooperation with other sponsors, practical workshops that address agricultural and environmental problems of developing countries. Two recent examples are "Human Welfare Implications of Irrigation Development" and "Vegetable Production and Marketing."

IAFP supports scholarly projects of undergraduate and graduate students (up to $1,000 and $5,000, respectively) that reflect Cook College's mission of service to the world community. Projects may be conducted on campus or with recognized programs abroad. They must have an international focus, incorporate a scholarly component that qualifies for credit, and be graded by a faculty member.

Small challenge grants are also available to faculty through the IAFP, as is assistance in establishing collaborative research projects with scientists in developing countries. More recently, the University has established a Coordinating Council for International Programs with a $100,000 pool for grants to faculty for the improvement of international education.

What better way might agricultural educators and administrators of international programs help bring greater global perspective to colleagues and students on their campuses than through the provision of curricula and faculty development initiatives such as those described above? Yet, these efforts alone are not enough. Other resource and support systems, such as those described below, must be in place if faculty are to make substantial, long-term commitments to international education and development activities.

Resource Rewards

International program involvement must not be a zero-sum resource game for its major players, if they are to play at all. It must visibly add to the extant resources for teaching, research, and public service. Three principal mechanisms have been (or are about to be) adopted at Cook College to provide this vital ingredient.

New Faculty Positions

Cook and the University provided IAFP with five new regular lines, or university state-funded faculty positions, as part of the matching requirement of a five-year, $500,000 Title XII Strengthening Grant received from the U.S. Agency for International Development. This added the minimum resources required for some departments to support partially the heavy up-front, start-up costs of international program involvement, described earlier. These new positions were allocated carefully to departments that it was judged, could contribute most to international program efforts in view of their strengths and the needs of foreign nations for teaching, research, and extension-related support. This, of course, required a steely-eyed assessment of what we do best as a college and of those geographic areas, functions, and disciplines/professions on which international program chips should be stacked in an effort to carve out a distinctive niche and product identity over the long haul for Cook College worldwide.

Indirect Cost Returns

The University agreed early on to return to IAFP its full share of the indirect costs associated with externally funded international projects. IAFP has used these returns to support its staff and related activities, but provides participating departments most of these monies when their faculty initiate, develop, and administer international projects. The only string IAFP attaches to this arrangement is that recipient departments utilize their earnings to support existing or new international program activities.

It goes without saying that this generous policy of the University has made IAFP, and departments of the College, aggressive competitors in funding for international activities provided by bilateral and multilateral organizations and private foundations. Starting from practically "zero" five years ago, we now rank, for example, 15th in the United States in terms of our volume of business with the U.S. Agency for International Development, and we believe that we are now positioned to raise that ranking substantially in the years ahead.

Faculty Replacement Positions

We are successfully concluding negotiations with Rutgers' central administration over a policy that will provide high-quality replacement resources for departments sending tenured and tenure-track resources overseas. A principal aim of this policy is to permit the College to staff out at least half of its overseas positions with tenured and tenure-track professionals.

The essential elements of this policy are:

1. New tenure-track lines will be provided on campus to replace tenured faculty on assignments abroad according to a 1.5:1.0 FTE ratio, i.e., 1.5-tenure track persons in New Brunswick for each tenured person overseas in continuous residence.

2. Overseas resident assignments by tenured faculty members will be for no less than 2 years, but for no more than 4 in every 10 years. This provision is intended to permit the University to meet minimum contract requirements, which usually call for assignments of at least 2 years, while maintaining program continuity back on campus.

3. Tenure-track replacement lines will be recruited at the assistant professor level.

4. Coadjutant (temporary teaching) resources will be made available during the first round of overseas assignments to cover up to four courses each year a tenured faculty person is abroad, except when faculty come from a Cook department with IAFP faculty.

5. Faculty will be recruited for overseas assignments from the entire University faculty community.

Should departments elect to replace tenured or tenure-track faculty with graduate assistants, postdocs, or other individuals, they will be free

to do so, provided that the costs of such replacements do not exceed the costs of faculty going abroad.

While financing for this policy is complicated, and it will need to be carefully monitored, it is a policy that is feasible for most universities we know. Examples of ways the policy may be operationalized are included in the next section.

Rewards for Professional Advancement

University promotion and tenure policies must ensure a fair and impartial evaluation of faculty on overseas assignments so that accomplishments will be given consideration equivalent to that given faculty of comparable rank engaged in research, teaching, and public service at home. Such policies reaffirm that international activities are fully legitimate and rewardable activities.

In recognition of these points, Cook's leadership has decided that an Agreement for an Overseas Assignment (AOA) should accompany all requests for approvals of long-term appointments abroad. The AOA is executed by the interested faculty person, relevant department chair, the dean/executive director of Cook/New Jersey Agricultural Experiment Station, the New Brunswick provost, and the University president. The relevance and appropriateness of each AOA will be reviewed annually, and amended as necessary, during the period faculty are overseas. The AOA consists of three chapters--goals, supporting resources, and evaluation--plus any appendix deemed to be necessary.

Goals

This chapter of the agreement charts carefully the nature of the international involvement with well-defined goals against which accomplishments can be measured. It should be agreed that these goals constitute a "genuine faculty assignment."

An overseas posting is usually based on an agreement or contract with an external funding agency or host country institution which describes goals and activities to be implemented in a "fundable language." These should be translated into "scholarly language," which is consistent with the University's standard performance criteria. This can be accomplished with a "Performance Conversion Matrix," illustrated here in Table 1 with a single-sample cell entry. The amount of detail appearing in any cell must balance a desire for professional risk minimization against needs for individual creativity and flexibility to respond to evolving opportunities. Also, in attempting to make overseas assignments valuable in scholarly terms, contractual commitments should not be distorted. The flip side of that caveat, of course, is that scholarship should not be compromised in an attempt to define the standard performance criteria in project terms.

Supporting Resources

This second chapter of the agreement seeks to fix resource and program commitments that will help ensure the realization of the goals spelled out in the first chapter.

The quantity of replacement resources available depends on the number of overseas posts the College can generate and fill continuously with tenured faculty. If 10 such posts are to be opened, then, according to the University's formula, described earlier these will support up to 15 new tenure-track (junior faculty) lines, plus coads to fill gaps created in the teaching program by the first round of overseas assignments. Modest amounts of flexible funding will also be made available by IAFP to support professional activities of faculty on overseas assignments (e.g., professional meeting attendance in the United States).

Care should be taken to use these returns in ways that make the goals of this agreement feasible for participating faculty and departments. Specifically, a high-priority use of the replacement lines will be for the maintenance of research productivity in New Brunswick and for bridging that research appropriately to the research efforts of faculty overseas. An example may help fix ideas.

Assume that an overseas post involves the improved marketing of exportable horticultural crops grown in Panama, and that the faculty candidate with relevant skills comes from Cook's Department of Agricultural Economics and Marketing. An effort should then be made to recruit replacement faculty who could sustain the on-campus horticultural marketing effort and broaden it to include and backstop activities of the specialist who goes overseas. To satisfy the latter requirement, on-campus research might be expanded to consider commercial trading opportunities between New Jersey and potentially significant foreign markets. A specific piece of research might be initiated that attempts to stabilize horticultural crop prices to New Jersey consumers by matching the seasonality of local production with imports from Panama. Such work would benefit the overseas project and New Jersey, and fully integrate efforts abroad with those on campus.

Examples like this one abound in most disciplines. With the generous levels of replacement resources to be made available by the University, creative managers will find ways to use them to enhance the feasibility of the goals of this agreement--not only to sustain, but to expand, the productivity of on-campus research, teaching, and extension programs.

Evaluation

Rutgers has a highly adaptable evaluation process for tenure and promotion that can resolve the tensions that naturally arise between the desire to move into a new field with the conservatism inherent in the University system. Recognizing this point, faculty with international interests have not proposed major alterations in the standard performance criteria.

Instead, the usual peer review process should be expanded to include rigorous and influential professionals who can assess their achievements--given the agreed on goals and supporting resources--in the light of the opportunities and constraints peculiar to the overseas work environment. On the side of constraints, especially prevalent in developing country settings, mention is made of personal and family hardships; poor infrastructure for research (laboratories, experimental fields, transportation, libraries, and data collection and management facilities);

Table 1 Performance Conversion Matrix

Performance Criteria - Scholarly Language	Project Goals - Fundable Language		
			Develop a graduate program in plant protection
Teaching			Teach a graduate weed science course each semester at the National University
Research			
Scholarly/Creative			
Professional			
Usefulness			

political and institutional disruptions; and limited opportunities locally for professional interactions. The result is longer gestation periods for research and significant disruptions and delays along the way.

If a department with faculty abroad does not count among its ranks individuals who have lived in and coped successfully with these circumstances, it will lean heavily on the judgments of others who have in evaluating the scholarly accomplishments of its members abroad. This applies similarly to all other units, groups/committees, and individuals responsible for promotion and tenure review at the University. In most disciplines represented at Cook, such external peers can be readily identified. This third chapter of the agreement involves their early identification--even, perhaps, drawing them into reviews of the goals and the feasibility of an overseas assignment before the total agreement, described here, has been executed. However, should it prove impossible to identify a cadre of external peers acceptable to the department in a particular case, the overseas assignment would be ill-advised.

Of course, the AOA needs to be accompanied by a more full-blown personnel policy for international program involvement, which details processes for appointments, faculty status and privileges while abroad, salary computations (Cook provides a modest premium for short- and long-term overseas assignments), leave provisions, and other important matters.

Summary and Conclusion

Described in this paper are four ingredients essential to the strengthening of international agricultural and environmental programs: (1) a clear justification and rationale for international program activities; (2) a campus-based curriculum and faculty development program; (3) resource rewards for participating departments and faculty; and, (4) professional advancement rewards for individual faculty. While their form and substance may vary from one university to another, we believe that these components are necessary prerequisites for success in international development activities.

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